

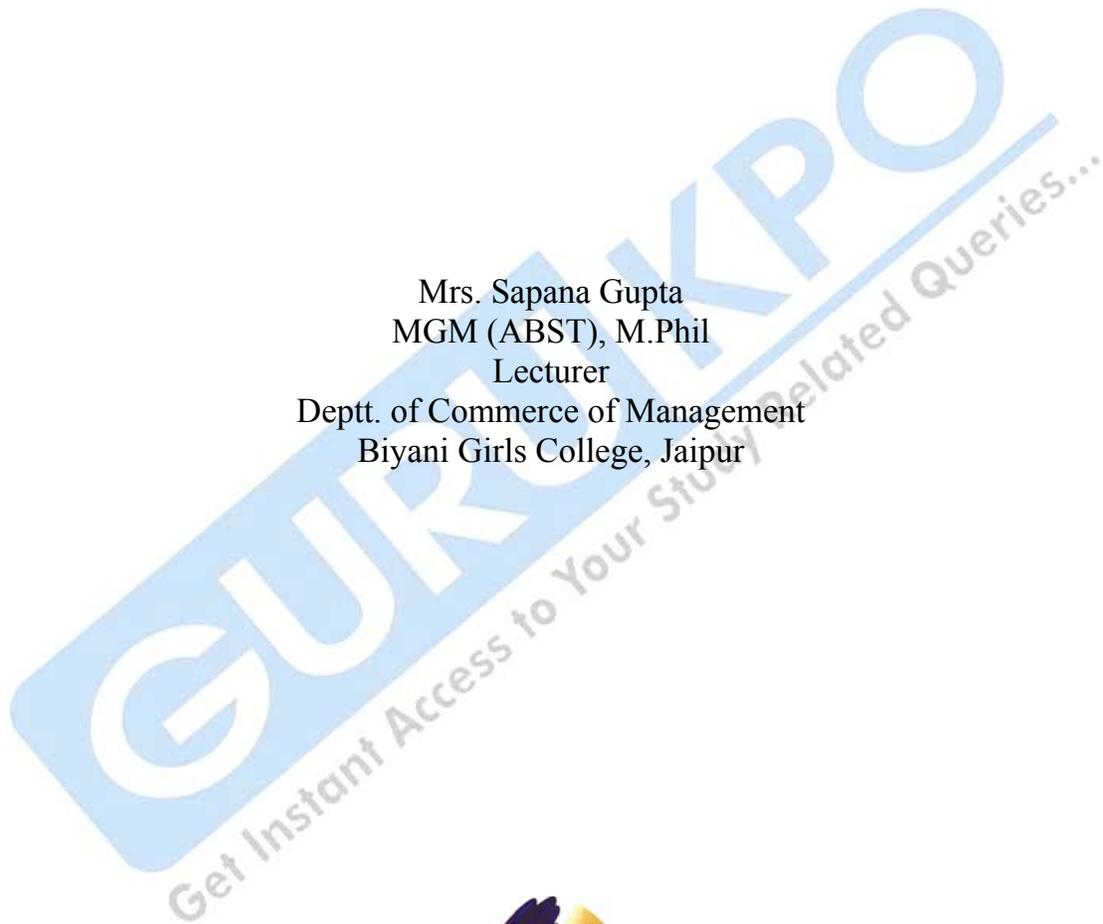
Biyani's Think Tank

*Concept based notes*

# Management Accounting

*B.Com. Part-III*

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## ■ Preface

I am glad to present this book, especially designed to serve the needs of the students. The book has been written keeping in mind the general weakness in understanding the fundamental concepts of the topics. The book is self-explanatory and adopts the “Teach Yourself” style. It is based on question-answer pattern. The language of book is quite easy and understandable based on scientific approach.

I any further improvement in the contents of the book by making corrections, omission and inclusion in keen to be achieved based on suggestions from the readers for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, Chairman & Dr. Sanjay Biyani, Director (Acad.), Biyani’s Group of Colleges, who are the backbones and main concept provider and also have been constant source of motivation throughout this endeavour. I also extend my thanks to M/s. Hastilipi, Omprakash Agarwal/Sunil Kumar Jain, Jaipur, who played an active role in coordinating the various stages of this endeavour and spearheaded the publishing work.

I also want to thank Ms. Shivani Singh and Ms. Swati Singh for her support and guidance during my writing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

**Author**

## Paper-II (I): MANAGEMENT ACCOUNTING

**Min. Pass Marks 36**

**3 hrs. Duration**

**Max. Marks 100**

### *Section-A*

1. Introduction: Meaning of management accounting, conventions of management accounting, organization of management accounting, functions, responsibilities and qualities of a management accountant, management accounting Vs. traditional accounting, limitations of management accounting.
2. Capital structure: determinants of capital structure, optimum capital structure. Basic theory capital structure.
3. Operating and financial leverage.
4. Working capital: concept, factors affecting working capital requirements, ascertainment of working capital requirements. Salient features of Tandon Committee and Chore committee reports.

### *Section-B*

5. Financial Analysis: Meaning, nature and importance of financial statements, techniques of financial analysis comparative statements, common size statements, trend analysis, limitation of financial statement analysis.
6. Elementary Ratio Analysis.
7. Cash flow and fund flow Analysis.

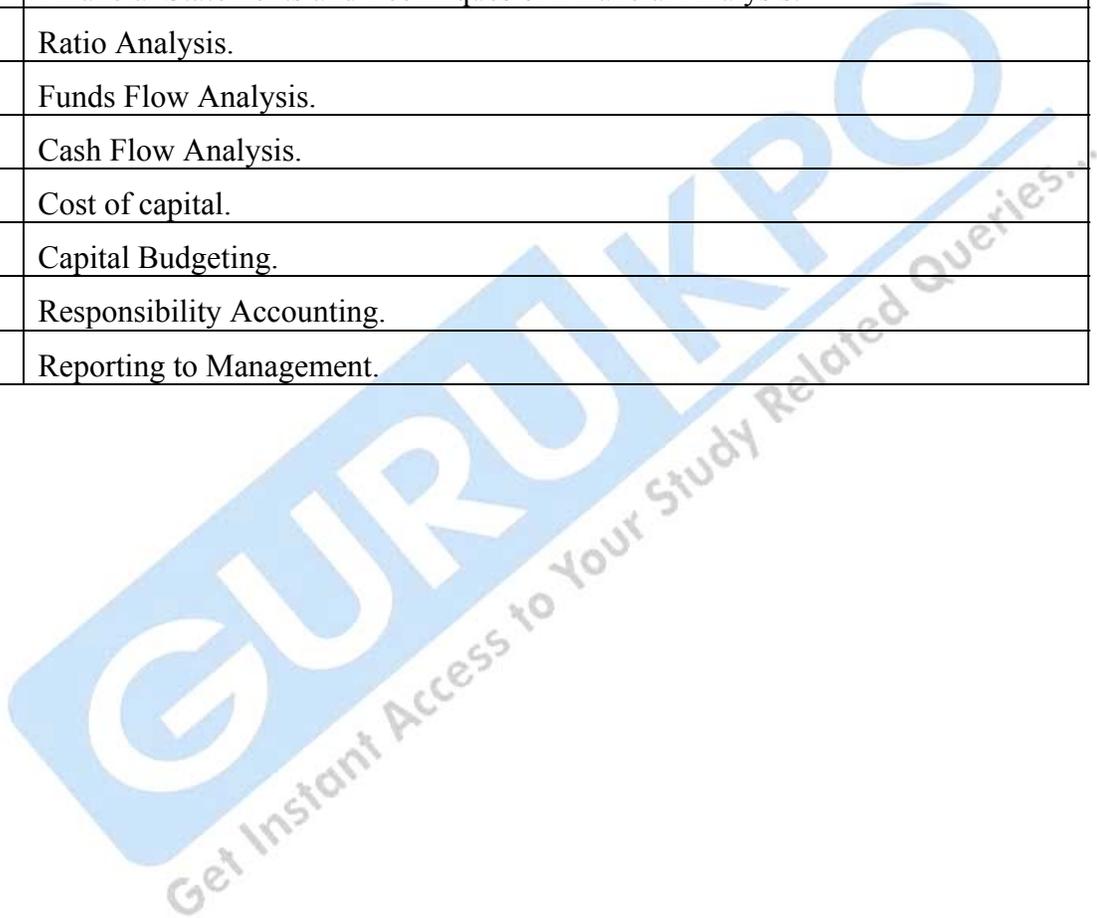
### *Section-C*

8. Cost of capital.
9. Capital expenditure decisions. Pay-back period, return on investment, discounted cash flow.
10. Responsibility accounting.
11. Reporting of Management.
12. Activity Based Costing.

**Note:** The candidate shall be permitted to use battery operated pocket calculator that should not have more than 12 digits, 6 functions and 2 memories and should be noiseless and cordless.

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7.	Ratio Analysis.
8.	Funds Flow Analysis.
9.	Cash Flow Analysis.
10.	Cost of capital.
11.	Capital Budgeting.
12.	Responsibility Accounting.
13.	Reporting to Management.



## Chapter-1

### Management Accounting: An introduction

Q.1 Define 'Management Accounting'? State its main characteristics and objectives.

Ans. Any form of accounting which enables a business to be conducted more efficiently can be regarded as management accounting?

Accounting to T.G. Rose "Management accounting is the adaptation and analysis of accounting information, and its diagnosis and explanation in such a way as to assist management.

#### Characteristics of Management Accounting:-

1. Management accounting enables future forecasting.
2. It is selective in nature.
3. Supplies Data, Not Decisions.
4. Integrated system.
5. It is a service functions which provides information to the management for formulating policies.
6. Established financial accounting rules are not followed in Management Accounting.
7. Management Accounting emphasizes, specially, on cause and effect relationship.
8. Emphasis is placed on nature of Cost Elements.
9. Management accounting is a developing subject.
10. Potentiality of development as a profession.

#### Objectives of management Accounting

The main objective of management accounting is to provide information for successfully carrying out the managerial duties. The objectives of management accounting are as under:-

1. To assist in Planning
2. Helps in organizing.
3. To assist in Interpreting Financial Information.
4. To assist in Controlling Performance.
5. To assist in Co-ordination.
6. Help in Motivating Employees.
7. Helps in analysis and interpreting the financial information.
8. To assist in decision making.

9. Helpful in reporting.
10. Helpful in fixing responsibility.
11. To Assure Accountability.

Q.2 What are the tools and techniques used in management Accounting?

Ans. Following tools and techniques are used in management accounting:-

1. Financial Planning
2. Analysis of financial statement
3. Historical Cost Accounting.
4. Responsibility Accounting.
5. Control Accounting
6. Revaluation Accounting
7. Decision Accounting
8. Statistical Methods
9. Management Information System
10. Mathematical Techniques
11. Taxation

Q.3 Describe in brief the functions of management accounting?

Ans. Management Accounting helps the management in two ways:-

- I. Providing necessary accounting information to management
- II. Helps in various activities and tasks performed by the management.

I. Providing necessary accounting information to management:-

- (a) Measuring:- For helping the management in measuring the work efficiency in different areas it is done on the past and present incidents with context to the future. In standard costing and budgetary control, standard and actual performance is compared to find out efficiency.
- (b) Recording:- In management accounting both the quantitative and qualitative types of data are included and this accounting is done on the basis of assumptions and even those items which cannot be expressed financially are included in management accounting.
- (c) Analysis:- The work of management accounting is to collect and analyze the facts related to the managerial problems and then present them in a clear and simple way.
- (d) Reporting:- For the use of management various reports are prepared. Generally two types of reports are prepared:-
  - a. Regular Reports
  - b. Special Reports.

## II - **Helping in Managerial works and Activities:-**

The main functions of management are planning, Organizing, staffing, directing and controlling. Management accounting provides information to the various levels of managers to fulfill the above mentioned responsibilities properly and effectively. It is helpful in various management functions as under:-

- (a) **Planning:-** Through management accounting forecasts regarding the sales, purchases, production etc. can be obtained, which helps in making justifiable plans. The tools of management accounting like standard costing, cost – volume – profit, analysis etc. are of great managerial costing, help in planning.
- (b) **Organizing:-** In management accounting whole organization is divided into various departments, on the basis of work or production, and then detailed information are prepared to simplify the thing. The budgetary control and establishing cost centre techniques of management accounting helps which result in efficient management.
- (c) **Staffing:-** Merit rating and job evaluation are two important functions to be performed for staffing. Generally only those employs are useful for the organization, whose value of work done by them is more then the value paid to them.

Thus by doing cost-benefit analysis management accounting is useful in staffing functions.

- (d) **Directing:-** For proper directing, the essentials are co-ordination, leadership, communications and motivation. In all these tasks management accounting is of great help. By analyzing the financial and non financial motivational factors, management accounting can be an asset to find out the best motivational factor.

Q.4 Explain the scope of management accounting and discuss how it serves the management needs?

Ans. **Scope of management accounting** :- Management accounting has a vast area which includes financial accounting and extends to the functions of a system of cost accountancy, budgetary control and statistical methods. The scope of management accounting includes:-

1. The management accounting is likely to evaluate the variation by reasons and the accountability and to put forward suitable corrective measures.
2. Analyzing and interpreting accounting and other figures to craft it logically and usable to management.
3. Configuration, installation and operation of accounting cost accounting and information systems, as a result it has to utilize these systems to get together the altering needs the of the management functions.
4. Provide system and techniques to estimate the recital of the right managements in the beam of the objectives of the firm.
5. The management accounting presents the history the figures in such a way as to reproduce the trends of events to the management.

6. Providing mean of communicating management plans to the various levels of the organization and assists the management in directing their activities
7. It is support management in decision making by:-
  - a. Providing significant accounting data,
  - b. Analyzing the outcome of alternative proposals on the profits and the situation of the enterprise.

Serve Management Needs:- Management accounting's main function is to assist the management. It presents comprehensive accounting information to the management to the facilitate them to keep useful control over stores and stock, to increase efficiency of the organization and check wastage and losses. The various advantages resulting by the management from a high – quality system of accounting are as follows:-

1. Management accounting helps in organizational efficiency.
2. Management accounting check and remover wastages.
3. Management accounting formulates comparisons.
4. Helps in price fixing.
5. Management accounting helps in maximizing profitability.
6. Management accounting protects against Seasonal fluctuations and trade Cycle.
7. Management accounting helps in growth of National Economy.
8. Management accounting helps in performance appraisal of business.

Q.5 Give limitation of management Accounting?

Ans. The main limitations are as follows:-

1. It is based on historical data.
2. Not an alternative to administration.
3. Lack of knowledge of Related Subjects.
4. Lack of continuity in efforts.
5. Effect of human factor.
6. Lack of Objectivity.
7. Costly installation.
8. Evolutionary stage.
9. Effect of time factor.
10. Psychological resistance.

## Chapter 2 Capital Structure.

**Q.1 What is meant by capital structure.**

Ans. Capital structure means the pattern of capital employed in the firm. It is a financial plan of the firm in which the various sources of capital are mixed in such proportions that those provide a distinct capital structure most suitable for the requirement of the firm.

Capital structure represents the mutual proportion between long term sources of capital which includes equity shares, preference shares, reserve & surplus and long term debts.

According to Weston and Brigham:-

“Capital structure is the permanent financing of the firm, represented by long-term debt, preferred stock and net-worth.”

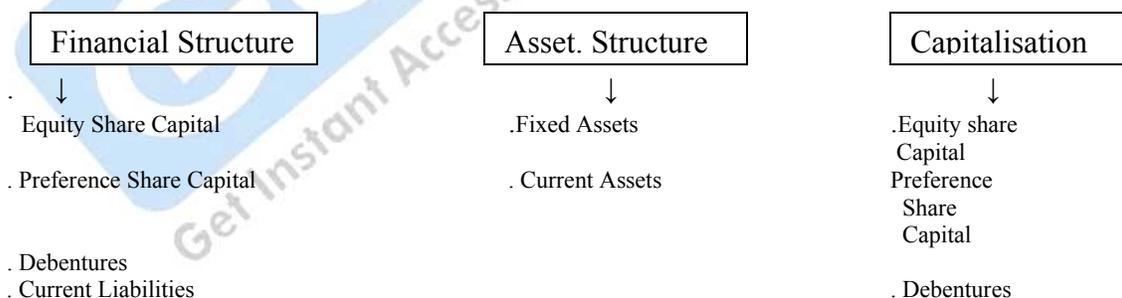
**Q.2 Define financial structure, Asset structure and capitalization?**

Ans. Financial structure:- refers to the way, the company’s assets are financed. It is the entire left hand side of balance sheet which includes all the long term and short-term sources of capital.

Asset Structure:- Asset structure refers to total assets and their components, It includes all types of assets of the company i.e. fixed assets and current assets.

Capitalization:- Capitalization is a quantitative concept indicating the total amount of long-term finance required to carry on the business capitalization comprises a corporation’s ownership capital and its borrowed capital, as represented by its long - Term indebtedness.

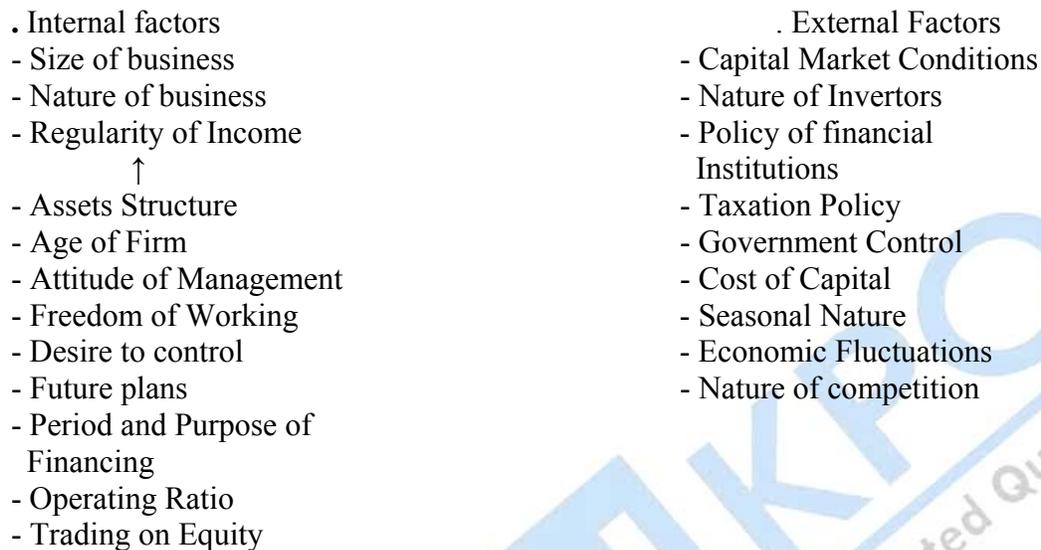
It can be presented by the following figure:-



**Q.3 What factors should be borne in mind in deciding a capital Structure?**

Ans. All the factors which affect its capital structure should be considered at the time of its formation. Generally factors affecting capital structure are divided in two categories, namely (A) Internal factors, and (B) External Factors.

## Factors Affecting capital Structure



### Q.4 What is balanced or optimum capital structure? Give essential of Optimum Capital Structure.

Ans. The optimal or the best capital structure implies the most economical and safe ratio between various types of securities. A capital structure of security mix that minimizes the firm's cost of capital and maximizes firms' value is called optimal capital structure.

#### Essentials of Optimum Capital Structure:-

1. **Simplicity:-** The capital structure should not be complicated. Therefore, it is essential that in the beginning only equity shares or preference shares should be issued and afterwards debentures may be issued.
2. **Flexibility:-** The capital structure should suit to the requirement of the firm in both short-term and long-term.
3. **Minimum Cost:-** A sound capital structure must ensure the minimum cost of capital therefore, while determining the capital structure, such a mix of different securities should be selected in which the cost is minimum.
4. **Minimum Risk:-** The capital structure should be least risky. Therefore, sound capital structure attempts at a perfect trade-off between return and risk.
5. **Maximum Return:-** The appropriate capital structure would be one that is most profitable to the company. It is possible when the cost of financing is minimum and the firm earns stable and adequate income regularly.

6. **Maximum Control:-** The capital structure should be designed to preserve the control of the company's management in the hands of existing shareholders. Therefore, additional funds be raised through debentures and preference shares.
7. **Safety:-** Debt should be used to the extent that the burden of fixed charges does not create the danger of insolvency.
8. **Full Utilization:-** The amount of capital should be determined in such a way that neither there should be over capitalization or under capitalization.
9. **Adequate Liquidity:-** The capital structure should be determined in such a way the it may always provide adequate liquidity.
10. **Alternative Rules:-** The capital structure should be that which provides different sights to the securities holder such as return, voting power, redemption, transfer etc. are more and more attractive.
11. **Fulfill Legal Requirements:-** The capital structure should fulfill certain rules framed in companies and other acts regarding the ratios of various types of securities in the capital structure of business concerns.

**Q.5 What is meant by point of indifference?**

Ans. Point of indifference is a level of earnings before interest and tax where earnings per share remain constant irrespective of the debt equity mix. The policy of trading on equity increases the earnings per shares but it is beneficial to a certain point after which it can prove to be disastrous. Hence till the rate of interest is lower than the return on assets, trading on equity is beneficial, but when both becomes equal which is called the point of indifference, more use of debt capital will be harmful.

Thus with the help of EBIT-EPS analysis keeping in view the point of indifference an optimal capital structure can be determined.

The point of indifference of EBIT can be ascertained by using the following algebraic formula:

$$\frac{(X-R_1)(1-T) - PD}{N_1} = \frac{(X-R_2)(1-T) - PD}{N_2}$$

Where,

X = EBIT at Indifference Point

R<sub>1</sub> = Interest in option I

R<sub>2</sub> = Interest in option II

T = Tax Rate

PD = Preference Dividend

N<sub>1</sub> = No. of Equity Shares in Option I

N<sub>2</sub> = No. of Equity Shares in Option II

**Q.6 Explain the principle of 'Trading on Equity'**

Discuss its utility to the management and point out its limitations.

Ans. Gestenberg defines trading on equity in these words: “When a person or corporation used borrowed capital as well as owned capital in the regular conduct of its business then it is said to be trading on equity.”

Trading on equity is an arrangement under which a company makes use of borrowed capital carrying a fixed rate of interest or dividend in such a way as to increase the return on equity shares. The policy of trading on equity can be adopted only when the management is confident that he will earn profits more than the interest to be paid on debt capital. In other words, trading on equity is advantageous then the rate of interest on debt is less than the average rate of return, otherwise not.

#### Utility of Trading on Equity:-

The basic philosophy behind trading on Equity is to use debt capital to earn more than their cost and to raise the rate of return on equity share capital. This policy leads higher dividend rate for equity shares, improvement of the goodwill of the firm and increase in the market price of equity shares. All these factors make it easy to get more loan from market at a lower rate of interest.

#### **Limitations of Trading on Equity:**

1. The firm should not follow the policy of trading on equity if there is no certainty and stability of income of the firm.
2. Increasing rate of interest of future loans as the risk of successive creditors increases due to prior lien of the existing creditors on the assets of the firm.
3. Sometimes the management, despite of strong financial position or the capacity to raise loans by issuing debentures at favorable terms, does not prefer the policy of trading on equity.
4. There is a limit of carrying on business with the use of borrowed funds. After that limit, there is a fear of over capitalization.
5. There are some legal and contractual difficulties without the fulfillment of those the management cannot follow the policy of trading on equity.
6. There are some other limitations like increasing burden of interest, interference of creditors in management and falling goodwill of the firm.

## Chapter 3

### Theories of capital structure.

**Q.1 Name the theories of capital structure?**

Ans. The theories of capital structure are as follows:-

1. Net Income theory.
2. Net Operating Income theory.
3. Traditional theory.
4. Modigliani – Miller theory.

**Q.2 Explain the theories of capital structure in brief?**

Ans. Net Income (NI) theory:-

This theory was propounded by David Durand. According to this theory a firm can increase the value of the firm and reduce the overall cost of capital by increasing the proportion of debt in its capital structure to the maximum possible extent.

As debt is cheaper source of finance, it results in a decrease in overall cost of capital leading to an increase in the value of the firm as well as market value of equity shares.

Assumptions:

1. The cost of debt is cheaper than the cost of equity
2. Income tax has been ignored
3. The cost of debt capital and cost of equity capital remains constant i.e. with the increase in debt capital the risk perception of creditors and equity investors does not change ]
4. Total value of firm = Market value of Equity + market value of debt.

$$\text{Or } V = S + D$$

2. Market Value of share (S);

$$S = \frac{E}{K_e} \quad \text{Or} \quad \frac{EBIT - I}{K_e}$$

Where;

E = Earnings available for equity shareholders

EBIT = Earnings before interest and Tax

$K_e$  = Cost of Equity Capital.

3. The overall cost of capital or capitalization ratio:

$$K_o = \frac{EBIT}{V}$$

$K_o$  = Overall cost of capital

V = Value of the firm.

### **Net Operating Income (NOI) Theory**

This theory has also been propounded by David Durand. This theory is just opposite that of Net Income Theory. According to this theory, the total market value of the firm (v) is not affected by the change in the capital structure and the overall cost of capital (K<sub>o</sub>) remains fixed irrespective of the debt-equity mix. According to this theory there is nothing like optimum capital structure.

Assumptions:-

1. The split of total capitalization between debt and equity is not essential or irrelevant.
2. At every level of capital structure business risk is constant; therefore, the rate of capitalization also remains constant.
3. The rate of debt capitalization remains constant.
4. There are no corporate taxes.
5. With the use of debt funds which are cheaper, the risk of shareholders increases, which in turn results to increase in the equity capitalization rate. Hence debt capitalization rate remains constant.

Computation:-

$$1. \text{Value of the firm} = \frac{\text{EBIT}}{K_o}$$

$$\text{Or } V = S + D$$

$$\text{Or } S = V - D$$

2. Cost of Equity Capital:-

$$K_e = \frac{\text{EBIT} - I}{S}$$

I = Interest on debt

### **Modigliani – miller theory:-**

This theory was propounded by Franco Modigliani and Merton Miller (generally referred to as M-M) who are Nobel Prize winners in financial economics. They have discussed their theory in two situations:

- (i) When there are no corporate taxes, and
- (ii) When there are corporate taxes.

#### **(i) In the Absence of Corporate taxes:-**

As per Modigliani – Miller if there are no corporate taxes than the changes in the capital structure of any firm do not bring any change in the overall cost of capital and total value of firm. The reason is that though the debt is cheaper to equity with increased use of debt as a source of finance, the cost of equity increases and the advantage of low-cost debt is offset equally by the increased cost of equity.

According to this theory, two identical firms in all respect, except their capital structure, cannot have different market value or cost of capital due to arbitrage processes.

For example, suppose the capital structure of company comprises of equity share capital of Rs 10, 00, 00 and 6% debentures of Rs 20, 00, 00. If the average rate of return on total capital employed is 10%, the company will earn a profit of Rs. 30,000 (10% on 30, 00, 00). Out of this profit, the company will have to pay leaving a balance of (1800/10,0,0x100) Which is the company succeeds in paying more dividend on equity shares capital with the use of borrowed capital such a situation in any business is known as 'trading on equity'.

**Assumptions:-**

1. The capital market is perfect.
2. There is no transaction cost.
3. All the firms can be divided in homogeneous risk classes.
4. There is no corporate tax.
5. All the profits of the firm are distributed.
6. Individual investors can easily get loans on the same terms and conditions on which any firm gets.

**(ii) When Corporate Taxes Exist:-**

The basic theory of Modigliani- Miller that the changes in the capital structure do not affect the total value of the firm and overall cost of capital is not true in the presence of corporate taxes.

Corporate taxes are reality; therefore, they changed their basic theory in the year 1963.

They accepted this fact that for corporate tax determination of interest is a deductible expenditure than the cost of debt is low. Therefore if any firm uses debt in its capital structure it leads to reduction in the overall cost of capital and increase in the value of the firm. They accepted that the total value of a leveraged firm is high than the non-leveraged firm.

**Computation:-**

1. Value of Unleveled firm (Vu)

$$V_u = \frac{\text{Earning after tax but before Interest}}{\text{After tax equity capitalization Rate}}$$

$$V_u = \frac{\text{EBIT} (1 - T)}{K_e}$$

2. Value of levered firm (Vt)

$$V_t = V_u + DT \quad \text{or} \quad \frac{\text{EBIT} (1-t) + DT}{K_e}$$

Where  $D$  = Amount of Debt  
 $T$  = Tax Rate

### **Traditional Theory:-**

The traditional theory is a mid-path between Net Income theory and Net Operating Income theory. According to this theory the cost of debt capital is lower than the cost of equity capital, therefore a firm by increasing the proportion of debt capital in its capital structure to a certain limit can reduce its overall cost of capital and can raise the total value of the firm. But after a certain limit the increase in debt capital leads to rise in overall cost of capital and fall in the total value of the firm. A rational or appropriate mix of debt and equity minimizes overall cost of capital and maximises value of the firm. Thus this theory accepts the idea of existence of optimum capital structure. Ezra Solomon has explained the effects of changes in capital structure on the overall cost of capital ( $K_o$ ) and the total value of firm ( $V$ ) in the following stages :

**First Stage :** In the beginning the use of debt capital in the capital structure of the firm results in fall of overall cost of capital and increases the total value of the firm because in the first stage cost of equity remains fixed rises slightly and use of debt is favourably treated in capital market.

**Second State :** In this stage beyond a particular limit of debt in the capital structure, the additional of debt capital will have insignificant or negligible effect on the value of the firm and the overall cost of capital. It is because the increase in cost of equity capital, due to increase in financial risk, offsets the advantage of using low cost of debt. Therefore during this second stage the firm can reach to a point where overall cost of capital is minimum and the total value is maximum.

**Third Stage:** - If the proportion of debt capital in the capital structure of the firm increases beyond an accepted limit this leads to increase in the overall cost of capital and fall in the total value of the firm because the financial risk rises rapidly which results into higher cost of equity capital which cannot be offset led by low debt capital cost. Hence, the total value of the firm will decrease and the overall cost of capital will increase.

## **Chapter 4** **Operating and Financial leverages**

**Q.1 What do you mean by leverage?**

**Ans.** Leverage means the employment of assets or funds for which the firm pays a fixed cost or fixed return. The fixed cost or fixed return. The fixed cost or return may be thought of as the fulcrum of a lever. In mechanics the leverage concept is used for a technique by which more weight is raised with less power. In financial management the leverage is there an account of fixed cost. If any firm is using some part of fixed cost capital than the firm has leverage which can be used for raising profitability and financial strength of firm.

**Q.2 What is operating leverage? Give the formula of calculating operating leverage and degree of operating leverage?**

Ans. Operating leverage is defined as the ability to use fixed operating costs to magnify the effect of changes in sales on its operating profits. If the fixed operating costs are more as compared to variable operating costs, the operating leverage will be high and vice-versa. Thus, the term 'Operating leverage' refers to the sensitivity of operating profit to changes in sales.

For example, if the sales increase by say 20% and the operating profit increases by 100% it is a case of high operating leverage.

Computation of Operating leverage:-

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{Operating Profit}}$$

Or

$$\frac{\text{Sales} - \text{Variable cost}}{\text{Contribution} - \text{Fixed Cost}}$$

Degree of Operating Leverage- (DOL)

The degree of operating leverage may be defined as the percentage change in operating profits resulting from a percentage change in sales

-On two levels of sales for comparison:-

Degree of operating leverage (DOL)

$$= \frac{\text{percentage change in profits}}{\text{Percentage change in sales}}$$

-On one level of sales:-

$$\text{DOL} = \frac{\text{Contribution}}{\text{EBIT}}$$

**Q.3 What is favorable operating leverage and what is the utility of operating leverage?**

Ans. When the profits increase with the increase in sales it is called favorable operating leverage.

**Utility of operating leverage:**

Operating leverage helps in capital structure decisions and play a vital role in formulation of an optimum capital structure. It is most helpful in long term profit planning as it is useful in taking decisions regarding capital expenditure. It is true to say that operating leverage is basically used in taking capital budgeting decisions.

**Q.4 What is meant by ‘financial leverage’? How it is computed?**

Ans. Financial leverage arises from the presence of fixed financial costs in the income stream of the firm or due to presence of fixed return securities in the capital structure of the company. Fixed cost securities are debentures and preference share.

Thus financial leverage is defined as, ‘the firm ability to use fixed financial cost to magnify the effect of changes in earnings before interest and tax (EBIT) on firm’s earnings per share. (EPS)

Financial leverage may be favorable or unfavorable. If the earnings made by the use of fixed interest bearing securities is more than their fixed costs. The firm is considered to have ‘favorable financial leverage’ or trading on equity. If the firm earns less than the cost of borrowed funds, the firm is said to have an ‘unfavorable financial leverage’.

**Computation of Financial leverage:-**

$$\text{Financial leverage} = \frac{\text{Earnings before interest and tax}}{\text{Earnings before tax but after interest}}$$

or

$$FL = \frac{EBIT}{EBT}$$

Degree of Financial leverage: (DFL)

(a) On one level of profit:

$$DFL = \frac{EBIT / \text{Operating Profit}}{EBT}$$

(b) On two level of profit for comparison :

$$DFL = \frac{\% \text{Change in EPS}}{\% \text{Change is EBIT}}$$

**Q.5 What is combined leverage, give its formula?**

Ans. The combined leverage may be defined as the relationship between contribution and the taxable income; it is the combined effect of both the leverage.

Combined Leverage = Operating Leverage X Financial Leverage.

$$\text{Or } \frac{\text{Contribution}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{EBT}}$$

$$\text{Or } \frac{\text{Contribution}}{\text{EBT}}$$

Degree of Combined Leverage : (DCL)

$$DCL = DOL \times DFL$$

Or

$$DCL = \frac{(\% \text{ Change in EBIT})}{(\% \text{ Change in Sales})} \times \frac{(\% \text{ Change in EPS})}{(\% \text{ Change in EBIT})}$$

Or

$$DCL = \frac{\% \text{ change in EPS}}{\% \text{ change in Sales}}$$

**Q.6 Give difference between operating and financial leverage.**

Ans. Difference between operating and Financial leverage

S.No.	Operating Leverage	Financial Leverage
1.	Establishes relationship between sales and Operating Profits	Relationship between Operating profits and return on owners equity.
2.	Concerned with investment decisions	Concerned with method of finance.
3.	Refers to fixed costs in the operations	Refers to the use of borrowed funds.
4.	Relates to the assets side of Balance sheet.	Relates to the liability side of Balance Sheet.
5.	Involves operating risk of being unable to cover fixed operating cost.	Involves financial risk being unable to cover fixed financial cost.
6.	First stage leverage.	Second stage leverage as financial leverage starts where operating leverage ends.

## Chapter 5 Management of Working Capital

**Q.1 What do you understand by working Capital?**

**Explain the concept and determinants of working capital.**

Ans. Working capital is a fund needed to fulfill the operating cost of a concern. Each and every business concern should have adequate funds to meet its day-to-day expenses and to finance current asset viz., debtors, receivables and inventories. The funds tied up in current assets are known as working capital funds. The funds invested in these current assets keep revolving and are being constantly converted into cash and this cash in again converted into current assets.

Therefore, working capital is also known as circulating capital, ‘revolving capital,’ ‘short-term capital’, or liquid capital.

Concepts of working capital:- The working capital has following concepts:

1. **Quantitative concept /caress working capital concept:-** The gross working capital refers to the firm's investment in current assets.

According to J.S. Milli, "The sum of current assets is the working capital of the business."

From the management point of view, this concept is more appropriate as the management formulates all the plans on the basis of current assets and concentrates his attention on the quantum of current assets and their profitability. Thus, this is a quantitative aspect of working capital which emphasizes more on quantity than its qualities.

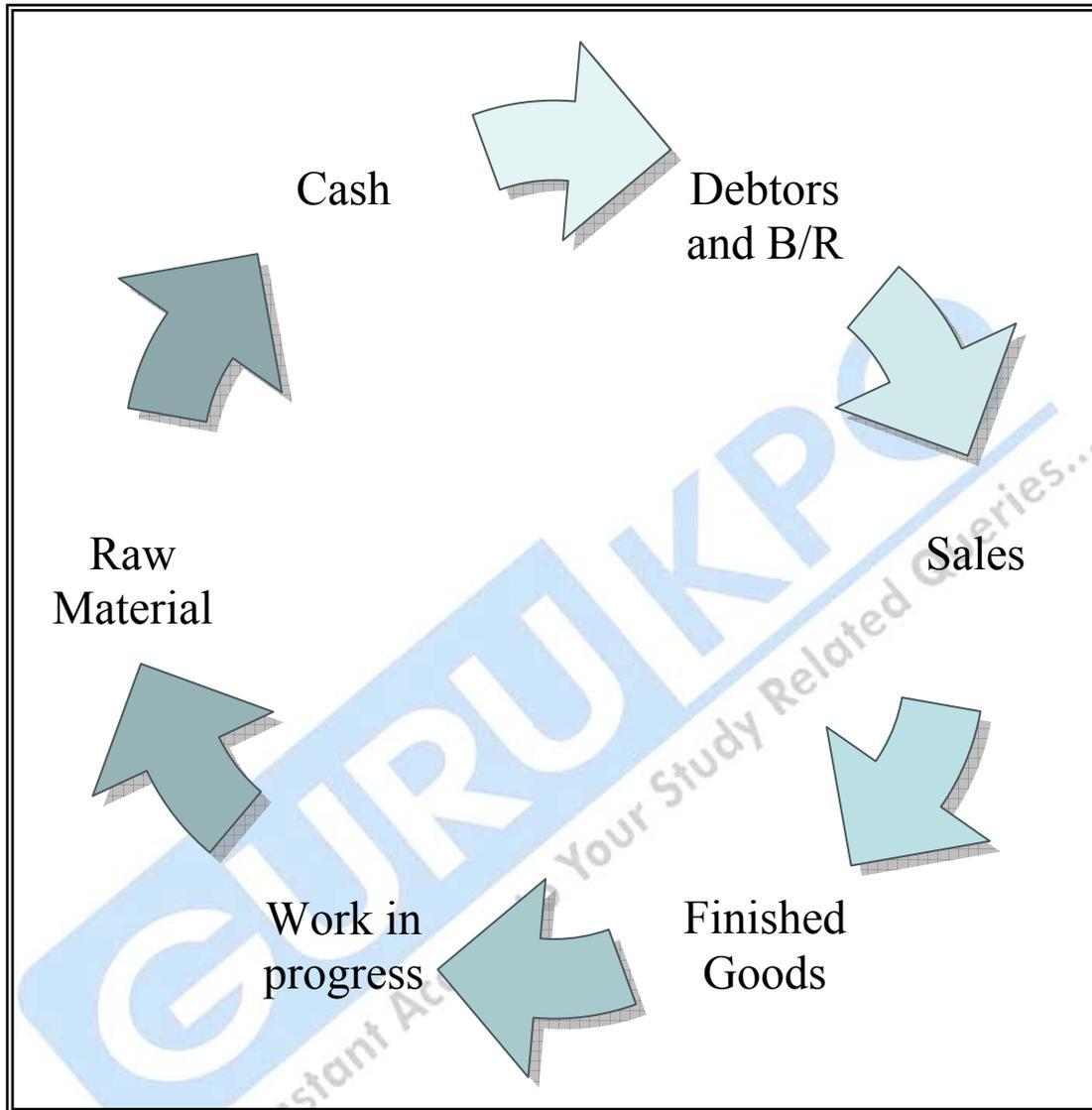
2. **Qualitative or Net working capital concept:** - The net working capital means the difference between current assets and current liabilities. If the amount of current liabilities. If the amount of current assets and current liabilities is equal, it means that there is no working capital.

The net working capital is a qualitative aspect of working capital and it measures the firm's liquidity. It also indicates the extend to which working capital can be financed with long term funds. This concept is useful only for accountants, investors, creditors or those persons who have interest in the liquidity and financial soundness of the firm.

3. **Operating Cycle concept:-** The amount of working capital required by a firm depends upon the length of production process and the expenses needed for this purpose. The time required to complete the production process right from Purchas of raw material to the realization of sales in cash is called the operating cycle or working capital cycle.

This concept is more appropriate than the qualitative and quantitative approach because in this case the fund required for carrying on the operational activities is treated as working capital. It is also called circulating capital.

### Diagram of Operating Cycle.



**Determinants of Working capital** :- The amount of working capital required depends upon a large number of factors and each factor has his own importance, They also vary from time to time in order to determine the proper amount of working capital of a firm, the following factors should be kept in mind :-

1. Nature of business
2. Size of business
3. Production process and policies
4. Changes in technologies
5. Requirement of cash
6. Availability of raw material

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7. Length of operating Cycle
8. Seasonal Nature of Business
9. Firm's Credit Policy
10. Terms of Purchase and Sales
11. Business Cycle fluctuations
12. Turnover of Inventories
13. Banking relations
14. Rate of growth of business
15. Dividend policies
16. Working capital turnover
17. Taxation Policies
18. Price level changes

**Q.2 Name the methods of estimating working capital requirements. Explain the method of calculating working capital by operating cycle and forecasting method?**

Ans. Following methods are generally used in estimating working capital :

- (i) Operating Cycle Method
- (ii) Net Current Assets Forecasting Method
- (iii) Projected Balance Sheet Method
- (iv) Adjusted Profit and Loss Method
- (v) Cash Flow Forecasting Method.

**Operating Cycle Method** Under this method working capital is estimated by dividing operating expenses incurred during the year by number of operating cycles in a year.

Steps for determining working capital :

Step 1. Calculation of total operating expenses : -  
 Total operating Expenses = Prime Cost + Factory Expenses + Office and administrative expenses + Selling and distribution expenses for a specific period. (Depreciation and other non-cash and non-operating items are excluded)

Step 2. Calculation of operating Cycle Period –  
 Operating Cycle = M + W + F + D – C

(a) [M]  $\text{Material Storage Period} = \frac{\text{Average stock of Raw Material}}{\text{Daily Average Consumption}}$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

$$\text{Daily Average Consumption} = \frac{\text{Annual consumption of Raw material}}{365}$$

(b) [W]  $\text{W/P or Conversion Period} = \frac{\text{Average Stock of work in progress}}{\text{Daily Average Production Cost}}$

$$\text{Daily Average Production Cost} = \frac{\text{Total Production Cost}}{365}$$

Total Production or Factory Cost = Prime cost + Factory Expenses + Opening Stock of W.I.P – Closing Stock of W.I.P

(c) [F] Finished Goods Storage Period =

$$\frac{\text{Average stock of Finished Goods}}{\text{Daily Average cost of Goods Sold}}$$

$$\text{Daily Average cost of goods sold} = \frac{\text{Total cost of Goods sold}}{365}$$

Cost of goods sold = Production / Factory Cost + Excise Duty + Opening stock of finished goods – closing Stock of finished goods.

(d) [D] Debtors Collection Period =  $\frac{\text{Average Debtors} + \text{B/R}}{\text{Credit Purchases per day}}$

$$\text{Credit Purchases per day} = \frac{\text{Total credit Purchases}}{365}$$

Step 3. No. of operating cycles in a year –

$$\text{No. of operating cycles} = \frac{365}{\text{Operating Cycle Period}}$$

Step 4. Requirement of Working capital

$$\text{Working Capital} = \frac{\text{Total Operating Expenses}}{\text{No. of Operating cycles a year.}}$$

$$\text{Or WC} = C + \frac{\text{OC}}{N} \times \text{CS}$$

WC = Working Capital

C = Cash Balance

OS = Operating Cycle Period

CS = Total Operating Expenses

N = No. of days in a year.

Step 5. Provision for contingencies –

After determining the amount of working capital, a certain amount say 5% or 10% may be added to cover contingencies.

### **Net current assets Forecasting Method**

According to this method an estimate of all the current assets is made on monthly basis. This should be followed by an estimate of current liabilities. Difference between the forecasted amount of current assets and current liabilities gives net working capital requirements of the firm. Reserve for contingencies will be added to this figure.

Following factors should be kept in mind while using this method :-

1. Stock of finished goods and debtors should be calculated at cash cost.
2. Calculation of 'work-in-progress' depends upon the degree of completion as regard material, labour and overheads. If production cycle is evenly than material period will be taken 100% and 50% in case of labour and overheads.

Working capital can be calculated by forecasting method as follows:

A. For a trading concern :

#### **Statement of Working capital Requirements**

<b>Items</b>	<b>Amount</b>
A. Current Assets :	Format

**Q. 3 who was the chairman of Tandon Committee and when it was constituted?**

Ans. Tandon committee was constituted in July, 1974 under the chairmanship of P.L. Tandon.

**Q.4 What are the three principles of Tandon Committee?**

Ans. Give any two recommendations of Tandon Committee.

The recommendations were mainly based on the following three principles:

1. The borrowers should have to maintain a reasonable financial discipline and give information to the banks regarding projects.
2. The main function of a banker as a lender in to supplements the borrower's resources to carry on acceptable level of current assets.
3. The bank should also know the purpose for which loan has been taken.

Recommendations of Tandon Committee:

1. The committee has suggested norms for 15 major industries regarding maximum levels for holding inventory and receivables.
2. The committee introduced the concept of 'maximum permissible bank finance'. The working capital gap should be bridged by the borrower's own funds, long term borrowings and partly through bank borrowings

**Q.5** What do you understand by core current assets?

Ans. The term 'core current assets' refers to the absolute minimum level of investment in raw material, work in-progress, finished goods and stores which are required at all time to carry out the minimum level of business activity. It is also called permanent working capital.

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